begin 55,72,154,399,351

24sep96 08:11:21 User208760 Session A7.1
$0.36 0.012 Hrs File1
$0.36 Estimated cost File1
$0.36 Estimated cost this search
$0.36 Estimated total session cost 0.012 Hrs.

SYSTEM:OS - DIALOG OneSearch
File 55:BIOSIS PREVIEWS(R) 1985-1996/Sep W3
(c) 1996 BIOSIS
File 72:EMBASE 1985-1996/Iss 37
(c) 1996 Elsevier Science B.V.
File 154:MEDLINE(R) 1985-1996/Nov W2
(c) format only 1996 Knight-Ridder Info
*File 154: Type HELP NEWS 154 for 1996 reload information.
*** MEDLINE updates delayed. See HELP DELAY 154.
File 399:CA SEARCH(R) 1967-1996/UD=12513
(c) 1996 American Chemical Society
*File 399: Use is subject to the terms of your user/customer agreement.
For format prices, including formats 6 & 8, see HELP RATES 399.
File 351:DERWENT WPI 1981-1996/UD=9637;UA=9633;UM=9626
(c)1996 Derwent Info Ltd

| Set | Items | Description |
|---|---|---|
| ?s sgp90 | | |
| S1 | 41 | SGP90 |

?rd s1

>>>Duplicate detection is not supported for File 351.

>>>Records from unsupported files will be retained in the RD set.
...completed examining records

| | | |
|---|---|---|
| S2 | 18 | RD S1 (unique items) |

?t s2/7/all

2/7/1 (Item 1 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)


11473588 BIOSIS Number: 98073588
Localization of ligands for L-selectin in mouse peripheral lymph node high endothelial cells by colloidal gold conjugates
Kikuta A; Rosen S D
Dep. Anatomy, Okayama Univ. Med. Sch., 2-5-1 Shikata-cho, Okayama 700, Japan
Blood 84 (11). 1994. 3766-3775.
Full Journal Title: Blood
ISSN: 0006-4971
Language: ENGLISH
Print Number: Biological Abstracts Vol. 099 Iss. 004 Ref. 043998
L-selectin, a Ca-2+-dependent lectin-like receptor, mediates lymphocyte attachment to high endothelial venules (HEV) of peripheral lymph nodes (PLN) during the process of lymphocyte homing. Two endothelial-derived ligands for L-selectin, known as GlyCAM-1 (Sgp50) and CD34 (Sgp90), have

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FILE 'USPAT' ENTERED AT 08:10:26 ON 24 SEP 96
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  *                W E L C O M E   T O   T H E                     *
  *          U. S.   P A T E N T   T E X T   F I L E               *
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=> s sgp90
L1             3 SGP90
=> d l1 1-3

1.  5,489,578, Feb. 6, 1996, Sulfated ligands for l-selectin and methods
of treating inflammation; Steven D. Rosen, et al., 514/61, 25, 53, 54,
62; 536/4.1, 17.2, 18.7, 53, 54, 55, 55.1, 55.2 [IMAGE AVAILABLE]

2.  5,484,891, Jan. 16, 1996, Selectin ligands; Laurence A. Lasky, et
al., 530/387.3; 435/7.2; 530/350, 395 [IMAGE AVAILABLE]

3.  5,304,640, Apr. 19, 1994, DNA sequence encoding a selectin ligand;
Laurence A. Lasky, et al., 536/23.5; 435/69.1, 172.3, 240.2, 320.1 [IMAGE
AVAILABLE]
=> s cd34
L2            65 CD34
=> e l2 1-65
E#      FILE              FREQUENCY  TERM
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E1      USPAT                     4     L1Z/BI
E2      USPAT                 21440     L2/BI
E3      USPAT                     0 --> L2 1-65/BI
E4      USPAT                     7     L2%/BI
E5      USPAT                     4     L2(0/BI
E6      USPAT                     1     L2(0,0/BI
E7      USPAT                     1     L2(0,1/BI
E8      USPAT                     2     L2(0.5625/BI
E9      USPAT                     2     L2(0.6250/BI
E10     USPAT                     2     L2(0.6875/BI
E11     USPAT                     2     L2(0.7500/BI
E12     USPAT                     2     L2(0.8125/BI
=> d l2 1-65

1.  5,556,992, Sep. 17, 1996, Novel rhodamine derivatives for
photodynamic therapy of cancer and in vitro purging of the leukemias;
Louis Gaboury, et al., 549/227 [IMAGE AVAILABLE]

2.  5,556,954, Sep. 17, 1996, Hematopoietic stem cell specific gene
expression; Timothy C. Burn, et al., 536/24.1; 435/240.2, 320.1 [IMAGE
AVAILABLE]

3.  5,554,528, Sep. 10, 1996, Compositions and methods for inhibition of
HIV production; Gail M. Harrison, et al., 435/240.2, 69.7, 172.3, 320.1,
948; 536/23.1; 935/27, 32, 57, 71 [IMAGE AVAILABLE]

4.  5,554,512, Sep. 10, 1996, Ligands for flt3 receptors; Stewart D.
Lyman, et al., 435/69.5; 424/85.1; 435/69.1, 172.1, 240.2, 252.3, 320.1;
530/351, 399; 536/23.5; 935/13 [IMAGE AVAILABLE]

5.  5,554,505, Sep. 10, 1996, Method and apparatus for optically
screening microscopic cells; Constance M. Hajek, et al., 435/7.21, 7.2,
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7.23, 7.24 [IMAGE AVAILABLE]

6. 5,548,065, Aug. 20, 1996, Tyrosine kinase receptor human flk-2-specific antibodies; Ihor R. Lemischka, 530/388.22, 387.9, 388.23, 388.7, 389.2, 389.6 [IMAGE AVAILABLE]

7. 5,543,328, Aug. 6, 1996, Adenoviruses having modified fiber proteins; Alan McClelland, et al., 435/320.1; 424/93.1, 93.2; 536/23.4, 23.72; 935/22, 32, 57 [IMAGE AVAILABLE]

8. 5,543,312, Aug. 6, 1996, Pastuerella haemolytica glycoprotease gene and the purified enzyme; Alan Mellors, et al., 435/220, 240.2, 252.3, 320.1; 536/23.2, 24.32 [IMAGE AVAILABLE]

9. 5,541,103, Jul. 30, 1996, **CD34**+ peripheral blood progenitor cells obtained by ex vivo expansion; Lothar Kanz, et al., 435/240.2; 424/85.1, 93.71; 435/240.25 [IMAGE AVAILABLE]

10. 5,541,072, Jul. 30, 1996, Method for magnetic separation featuring magnetic particles in a multi-phase system; Yuzhou Wang, et al., 435/7.21; 209/214, 223.1; 210/222, 695, 767; 435/2, 5, 6, 7.1, 7.23, 7.31, 7.32; 436/177, 501, 518, 526, 807, 824 [IMAGE AVAILABLE]

11. 5,536,641, Jul. 16, 1996, Monoclonal antibody specific for vascular endothelial cell antigen endoglyx-1 and uses thereof for detection of, and isolation of, vascular endothelial cells; Maria P. Sanz-Moncasi, et al., 435/7.21, 7.23, 70.21, 172.2, 240.27, 261; 530/388.2, 388.22 [IMAGE AVAILABLE]

12. 5,536,475, Jul. 16, 1996, Apparatus for magnetic cell separation; Ahmad-Maher Moubayed, et al., 422/101; 209/217, 225, 232; 210/222; 422/44, 99; 435/2, 7.21, 962, 971; 436/526, 806, 807; 604/6 [IMAGE AVAILABLE]

13. 5,530,101, Jun. 25, 1996, Humanized immunoglobulins; Cary L. Queen, et al., 530/387.3; 424/133.1, 143.1; 530/387.1, 388.22 [IMAGE AVAILABLE]

14. 5,523,286, Jun. 4, 1996, Stroma-derived proteoglycan containing composition which promotes differentiation and maintains the self-renewal capacity of long-term bone marrow culture-initiating cells; Philip B. McGlave, et al., 514/8; 435/240.2, 240.21, 240.3; 514/21; 536/20, 21 [IMAGE AVAILABLE]

15. 5,521,067, May 28, 1996, Bone marrow cell adhesion molecules and process for detecting adherence between cell adhesion molecules and cells generally; Beerelli Seshi, 435/7.24, 7.2, 7.9, 29, 961, 962; 436/63, 516 [IMAGE AVAILABLE]

16. 5,519,028, May 21, 1996, Antiviral preparations; Mirko Beljanski, 514/285, 307 [IMAGE AVAILABLE]

17. 5,514,340, May 7, 1996, Device for separating magnetically labelled cells; Peter Lansdorp, et al., 422/101; 209/223.1, 223.2, 636; 210/222, 695; 422/99; 435/2, 7.23; 436/526 [IMAGE AVAILABLE]

18. 5,512,480, Apr. 30, 1996, Flow-through bioreactor with grooves for cell retention; Craig Sandstrom, et al., 435/289.1; 220/670; 435/293.1, 299.1, 304.2, 813 [IMAGE AVAILABLE]

19. 5,512,442, Apr. 30, 1996, Detection of vascular adhesion protein-1 (VAP-1); Sirpa Jalkanen, et al., 435/7.21, 7.1, 7.2 [IMAGE AVAILABLE]

20. 5,506,126, Apr. 9, 1996, Rapid immunoselection cloning method; Brian Seed, et al., 435/172.3, 320.1; 536/24.2 [IMAGE AVAILABLE]

21. 5,498,599, Mar. 12, 1996, Methods for stimulating platelet production; Esther S. Choi, et al., 514/12, 2, 814, 833, 885 [IMAGE AVAILABLE]

22. 5,489,578, Feb. 6, 1996, Sulfated ligands for l-selectin and methods of treating inflammation; Steven D. Rosen, et al., 514/61, 25, 53, 54, 62; 536/4.1, 17.2, 18.7, 53, 54, 55, 55.1, 55.2 [IMAGE AVAILABLE]

23. 5,489,516, Feb. 6, 1996, Hybridoma and monoclonal antibody specific for human stem cell factor receptor and methods of use of the monoclonal antibody for detection of stem cell factor receptors; Virginia C. Broudy, et al., 435/7.23, 7.21, 7.24, 172.2, 240.27; 530/387.7, 388.22, 388.23 [IMAGE AVAILABLE]

24. 5,486,536, Jan. 23, 1996, Sulfatides as anti-inflammatory compounds; Peter A. Ward, et al., 514/460 [IMAGE AVAILABLE]

25. 5,480,825, Jan. 2, 1996, AG-F human T cell line with unique phenotype and cytokine secretions; Yair Gazitt, 435/240.25, 240.1, 240.2 [IMAGE AVAILABLE]

26. 5,474,687, Dec. 12, 1995, Methods for enriching **CD34**.sup.+ human hematopoietic progenitor cells; Peter Van Vlasselaer, 210/782; 422/72, 102; 435/2; 494/16; 604/49, 187, 191 [IMAGE AVAILABLE]

27. 5,472,867, Dec. 5, 1995, Ex vivo expansion of peripheral blood progenitor cells; Lothar Kanz, et al., 435/240.25; 424/85.1, 85.2, 85.5, 93.71, 144.1; 435/240.3 [IMAGE AVAILABLE]

28. 5,468,612, Nov. 21, 1995, 9804 gene and methods of use thereof; Edward H. Cohen, et al., 435/6, 240.2, 320.1; 536/23.5; 935/1, 22, 24, 76, 77, 78 [IMAGE AVAILABLE]

29. 5,466,572, Nov. 14, 1995, High speed flow cytometric separation of viable cells; Dennis T. Sasaki, et al., 435/2; 436/63, 172 [IMAGE AVAILABLE]

30. 5,464,753, Nov. 7, 1995, Purification and manipulation of bone marrow and blood cells on the basis of P-glycoprotein expression; Preet M. Chaudhary, et al., 435/7.24, 2, 7.21, 240.2; 436/56, 172, 536 [IMAGE AVAILABLE]

31. 5,460,964, Oct. 24, 1995, Method for culturing hematopoietic cells; Philip B. McGlave, et al., 435/240.21, 240.1, 240.2, 240.241, 240.25 [IMAGE AVAILABLE]

32. 5,459,069, Oct. 17, 1995, Device for maintaining and growing human stem and/or hematopoietics cells; Bernhard O. Palsson, et al., 435/289.1, 293.1, 293.2, 297.1, 297.2 [IMAGE AVAILABLE]

33. 5,439,586, Aug. 8, 1995, Magnetic filter with ordered wire array;

Adrian J. Richards, et al., 210/222, 456 [IMAGE AVAILABLE]

34. 5,436,151, Jul. 25, 1995, Method for culturing human hematopoietic stem cells in vitro; Philip B. McGlave, et al., 435/240.1, 240.2, 240.21, 240.241, 240.25 [IMAGE AVAILABLE]

35. 5,429,927, Jul. 4, 1995, Antigen/anti-antigen cleavage; John Afseth, et al., 435/7.2, 2, 7.24, 239, 240.2, 243, 261, 975; 436/512, 518, 526; 530/391.1 [IMAGE AVAILABLE]

36. 5,418,129, May 23, 1995, Blood treatment method; Edward Nudelman, et al., 435/2; 424/140.1; 435/70.21, 240.27; 530/388.23, 388.25 [IMAGE AVAILABLE]

37. 5,409,826, Apr. 25, 1995, Preserved, non-infectious control cells prepared by the modulation or modification of normal cells; John A. Maples, et al., 435/240.2, 2, 29; 436/10; 536/124 [IMAGE AVAILABLE]

38. 5,409,825, Apr. 25, 1995, Expansion of human hematopoietic progenitor cells in a liquid medium; Ronald Hoffman, et al., 435/240.1, 240.2, 240.21, 240.25 [IMAGE AVAILABLE]

39. 5,409,813, Apr. 25, 1995, Method for mammalian cell separation from a mixture of cell populations; Richard M. Schwartz, 435/7.24; 210/660, 661, 695; 435/2, 30, 240.2; 436/526 [IMAGE AVAILABLE]

40. 5,378,624, Jan. 3, 1995, Methods for removing ligands from a particle surface; Ronald J. Berenson, et al., 435/239, 240.21, 243, 254.1, 261; 436/541, 824, 828 [IMAGE AVAILABLE]

41. 5,374,531, Dec. 20, 1994, Immunoassay for determination of cells; Bruce D. Jensen, 435/7.24, 7.32, 7.92, 975; 436/518, 523, 526, 533, 534 [IMAGE AVAILABLE]

42. 5,369,009, Nov. 29, 1994, Antibodies for P-glycoprotein encoded by the mdr1 gene and uses thereof; Robert J. Arceci, et al., 424/1.49; 435/7.21, 7.23, 240.27, 243; 530/387.7, 388.8 [IMAGE AVAILABLE]

43. 5,367,057, Nov. 22, 1994, Tyrosine kinase receptor flk-2 and fragments thereof; Ihor R. Lemischka, 530/350, 403 [IMAGE AVAILABLE]

44. 5,362,631, Nov. 8, 1994, C-myb transfected T98G cells which produce GM-CSF and stem cell factor; Bruno Calabretta, 435/69.5, 69.4, 240.2 [IMAGE AVAILABLE]

45. 5,359,046, Oct. 25, 1994, Chimeric chains for receptor-associated signal transduction pathways; Daniel J. Capon, et al., 536/23.4; 435/6, 69.1, 70.2, 235.1, 240.1, 240.2, 320.1; 530/350; 536/23.1, 23.5, 23.51, 23.52, 23.53 [IMAGE AVAILABLE]

46. 5,356,373, Oct. 18, 1994, Method and apparatus for autologous transfusions in premature infants; Robert A. Dracker, 604/4, 317 [IMAGE AVAILABLE]

47. 5,348,859, Sep. 20, 1994, Method and apparatus for obtaining an absolute white blood cell subset count and white blood cell multipart differential; Robert F. Brunhouse, et al., 435/7.24, 7.2, 7.21, 7.23

[IMAGE AVAILABLE]

48. 5,340,719, Aug. 23, 1994, Method and apparatus for optically screening microscopic cells; Constance M. Hajek, et al., 435/7.21, 7.2, 7.23, 7.24 [IMAGE AVAILABLE]

49. 5,322,787, Jun. 21, 1994, Cytokine and bioassay therefor; Michael Martin, et al., 435/240.2, 29, 240.1 [IMAGE AVAILABLE]

50. 5,283,354, Feb. 1, 1994, Nucleic acids encoding hematopoietic stem cells receptors flk-1; Ihor R. Lemischka, 536/23.5; 435/69.1; 530/350, 403 [IMAGE AVAILABLE]

51. 5,270,458, Dec. 14, 1993, Nucleic acids encoding fragments of hematopoietic stem cell receptor flk-2; Ihor R. Lemischka, 536/23.5; 435/69.1, 320.1; 530/350, 403 [IMAGE AVAILABLE]

52. 5,256,534, Oct. 26, 1993, CD4.sup.+, latently HIV-1-infected hematopoietic progenitor cells; Salvatore T. Butera, et al., 435/5, 7.24, 8, 239, 240.26 [IMAGE AVAILABLE]

53. 5,252,479, Oct. 12, 1993, Safe vector for gene therapy; Arun Srivastava, 435/235.1, 240.2, 320.1 [IMAGE AVAILABLE]

54. 5,246,699, Sep. 21, 1993, Maturation of hemopoietic cells; Patrice Debre, et al., 424/85.2; 435/975; 514/8, 12, 21; 530/351 [IMAGE AVAILABLE]

55. 5,234,816, Aug. 10, 1993, Method for the classification and monitoring of leukemias; Leon W. M. M. Terstappen, 435/7.24; 436/64, 172, 536 [IMAGE AVAILABLE]

56. 5,206,345, Apr. 27, 1993, IL-4 and TNF induce mAb 6G10-recognized expression on bone marrow stromal cells; Boris Masinovsky, et al., 530/388.7; 435/7.21, 240.27; 436/548 [IMAGE AVAILABLE]

57. 5,199,942, Apr. 6, 1993, Method for improving autologous transplantation; Steven Gillis, 604/4; 128/898; 424/85.2, 529; 435/240.21; 604/49 [IMAGE AVAILABLE]

58. 5,198,356, Mar. 30, 1993, Monophenotypic in vitro cell lines of megakaryocytic lineage, products produced thereby and methods; Michael A. Lieberman, et al., 435/240.2, 240.1, 240.23 [IMAGE AVAILABLE]

59. 5,185,438, Feb. 9, 1993, Nucleic acids encoding hencatoporetic stem cell receptor flk-2; Ihor R. Lemischka, 536/23.2; 435/69.1, 320.1; 530/350, 403 [IMAGE AVAILABLE]

60. 5,147,784, Sep. 15, 1992, T-lymphocyte progenitor cell assay; Bruno Peault, 435/7.24, 30, 34, 240.2, 243 [IMAGE AVAILABLE]

61. 5,137,809, Aug. 11, 1992, Method to determine the composition of bone marrow samples; Michael R. Loken, et al., 435/7.21; 422/61; 435/7.1, 7.2; 436/546, 800 [IMAGE AVAILABLE]

62. 5,128,259, Jul. 7, 1992, Factor-dependent hematopoietic cell line exhibiting epo-induced erythrocyte maturation; Doris A. Morgan, 435/240.2, 240.1, 240.25, 948 [IMAGE AVAILABLE]

63. 5,081,030, Jan. 14, 1992, Release of cells from affinity matrices; Curt I. Civin, 435/240.2; 424/577; 435/2, 240.23, 267 [IMAGE AVAILABLE]

64. 5,061,620, Oct. 29, 1991, Human hematopoietic stem cell; Ann Tsukamoto, et al., 435/7.21, 240.2, 240.21 [IMAGE AVAILABLE]

65. 5,041,289, Aug. 20, 1991, Method of purging residual tumor cells in vitro with lymphokine activated cytotoxic cells; Joseph H. Phillips, et al., 424/85.2, 85.1, 85.4, 93.7, 93.71, 93.73, 534, 573, 577, 578; 435/240.1, 240.2, 240.21 [IMAGE AVAILABLE]

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=> s l1 and l2
L3            1 L1 AND L2
=> d l3 1

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been identified by affinity precipitation of lymph nods extracts with a chimeric molecule that combines the extracellular domains of L-selectin with the human IgG1 Fc region (L-selectin-IgG) (J Cell Biol 110:2221, 1990). Here, using a histologic probe based on colloidal gold conjugated to L-selectin-IgG (LS-1g), we performed morphologic mapping of the HEV ligands in PLN at both the light and electron microscopic levels. With a postembedding labeling method, intense LS-Ig-gold staining of PLN HEV was observed, while the HEV of Peyer's patches (PP) were negative. The specificity of LS-Ig-gold staining was established by pretreatment of sections with sialidase and coincubation of sections with EGTA, fucoidin, or L-selectin-IgG itself. In ultrastructural studies of high endothelial cells(HEC), gold particles were bound to the trans-Golgi network(TGN) and to peripheral vesicles in the cytoplasm. Gold labeling was also detected in a patchy distribution on the entire luminal vascular surface of HEC. Although the perivascular fibroreticular sheath of HEV was frequently labeled, limited labeling was observed on the basolateral surfaces of the HEC. In most cases, the HEC membrane surrounding migrating lymphocytes was negative. These results show that L-selectin ligands pass through the Golgi apparatus during their biosynthesis, are stored in secretory granules, and are expressed on the vascular luminal surface of the HEC. A polyclonal antiserum to GlyCAM-1 intensely stained intracellular organelles in the biosynthetic pathway including cytoplasmic vesicles, but failed to stain the cell surface of HEC. Given its presence in serum as a soluble factor, GlyCAM-1 is likely to be a secretory product.

2/7/2 (Item 2 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)


11445757 BIOSIS Number: 98045757

Sulfation-dependent recognition of high endothelial venules (HEV)-ligands by L-selection and MECA 79, an adhesion-blocking monoclonal antibody

Hemmerich S; Butcher E C; Rosen S D
Dep. Anat., Univ. Calif., San Francisco, CA 94143-0452, USA

Journal of Experimental Medicine 180 (6). 1994. 2219-2226.
Full Journal Title: Journal of Experimental Medicine
ISSN: 0022-1007
Language: ENGLISH
Print Number: Biological Abstracts Vol. 099 Iss. 003 Ref. 030301

L-selectin is a lectin-like receptor that mediates the attachment of lymphocytes to high endothelial venules (HEV) of lymph nodes during the process of lymphocyte recirculation. Two sulfated, mucin-like glycoproteins known as Sgp50/GlyCAM-1 and Sgp90/CD34 have previously been identified as HEV-associated ligands for L-selectin. These proteins were originally detected with an L-selectin/Ig chimera called LEC-IgG. GlyCAM-1 and CD34 are also recognized by an antiperipheral node addressin (PNAd) mAb called MECA 79, which blocks L-selectin-dependent adhesion and selectively stains lymph node HEV. The present study compares the requirements for the binding of MECA 79 and LEC-IgG to HEV-ligands. Whereas desialylation of GlyCAM-1 and CD34 drastically reduced binding to LEC-IgG, this treatment enhanced the binding of GlyCAM-1 to MECA 79. In contrast, the binding of both MECA 79 and LEC-IgG to GlyCAM-1 and CD34 was greatly decreased when the sulfation of these ligands was reduced with chlorate, a metabolic inhibitor of sulfation. Because MECA 79 stains HEV-like vessels at various sites of inflammation, recognition by L-selectin of ligands outside of secondary lymphoid organs may depend on sulfation. In addition to their reactivity with GlyCAM-1 and CD34, both MECA 79 and LEC-IgG recognize an independent

molecule of apprx 200 kD in a sulfate-dependent manner. Thus, this molecule, which we designate Sgp200, is an additional ligand for L-selectin.

2/7/3 (Item 3 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)


10801195 BIOSIS Number: 97001195
Binding of L-selectin to the vascular sialomucin CD34
Baumheuter S; Singer M S; Henzel W; Hemmerich S; Renz M; Rosen S D; Lasky L A
Dep. Immunol., Genentech Inc., South San Francisco, CA 94080, USA
Science (Washington D C) 262 (5132). 1993. 436-438.
Full Journal Title: Science (Washington D C)
ISSN: 0036-8075
Language: ENGLISH
Print Number: Biological Abstracts Vol. 097 Iss. 001 Ref. 001138
The adhesive interactions between leukocyte L-selectin and the endothelium are involved in the migration of lymphocytes through peripheral lymph nodes and of neutrophils to sites of inflammation. A recombinant L-selectin stains high endothelial venules (HEVs) in lymph nodes and recognizes sulfated carbohydrates found on two endothelial glycoproteins, Sgp50 and Sgp90. Amino acid sequencing of purified Sgp90 revealed a protein core identical to that of CD34, a sialomucin expressed on hematopoietic stem cells and endothelium. A polyclonal antiserum to recombinant murine CD34 stains peripheral lymph node endothelium and recognizes Sgp90 that is functionally bound by L-selectin. Thus, an HEV glycoform of CD34 can function as a ligand for L-selectin.

2/7/4 (Item 4 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)


10801155 BIOSIS Number: 97001155
L-selectin and its biological ligands
Rosen S D
Dep. Anat. and Program Immunol., Univ. Calif., San Francisco, CA 94143-0452, USA
Histochemistry 100 (3). 1993. 185-191.
Full Journal Title: Histochemistry
ISSN: 0301-5564
Language: ENGLISH
Print Number: Biological Abstracts Vol. 097 Iss. 001 Ref. 001108
This review considers the leukocyte adhesive receptor known as L-selectin. This protein, belonging to the selectin family of cell-cell adhesion receptors, mediates adhesion by virtue of a C-type lectin domain at its amino terminus. The protein was discovered as a lymphocyte homing receptor involved in the attachment of lymphocytes to high endothelial venules (HEV) of lymphs nodes. Its widespread distribution on all leukocyte populations underlies a more general role in a variety of leukocyte-endothelial interactions. In the HEV interaction, cognate HEV ligands for L-selectin have been identified as two sulfated, sialylated, and fucosylated glycoproteins, known as GlyCAM-1 and Sgp90. These ligands have mucin-like domains which confer important properties for their proposed adhesive function. The carbohydrate features of these ligands,

essential for their interaction with L-selectin, are reviewed. The existence of extra-lymphoid ligands for L-selectin is also discussed.

2/7/5 (Item 5 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)


10104576 BIOSIS Number: 95104576
SULPHATION REQUIREMENT FOR GLYCAM-1 AN ENDOTHELIAL LIGAND FOR L SELECTIN
IMAI Y; LASKY L A; ROSEN S D
DEP. ANAT., PROGRAM IMMUNOL., UNIV. CALIF., SAN FRANCISCO, CA 94143-0452, USA.
NATURE (LOND) 361 (6412). 1993. 555-557. CODEN: NATUA
Full Journal Title: NATURE (London)
Language: ENGLISH
L-selectin participates in the initial attachment of leukocytes to the vascular endothelium1-3. On lymphocytes, it mediates binding to high endothelial venules of lymph nodes. As a selectin4-6 it functions as a calcium-dependent lectin7,8 recognizing carbohydrate-bearing ligands on endothelial cells9-11. Two lymph node ligands for L-selectin have been identified as sulphated glycoproteins of Mr .apprx.50K and .apprx.90K, called Sgp50 and Sgp90 (ref. 10). The recently cloned Sgp50(ref.12), now designated GlyCAM-1, is a high endothelial venule-associated, mucin-like glycoprotein containing predominantly O-linked carbohydrate chains. Sialylation of GlyCAM-1 is necessary for its ligand activity9,10,13 and a role for fucosylation is suspected13. We have used chlorate as a metabolic inhibitor of sulphation, and report here that GlyCAM-1 has an additional requirement for sulphate.

2/7/6 (Item 6 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)


9599143 BIOSIS Number: 94104143
FURTHER CHARACTERIZATION OF THE INTERACTION BETWEEN L SELECTIN AND ITS ENDOTHELIAL LIGANDS
IMAI Y; LASKY L A; ROSEN S D
DEP. ANATOMY, PROGRAM IMMUNOLOGY, UNIV. CALIF., SAN FRANCISCO, CALIF. 94143-0452.
GLYCOBIOLOGY 2 (4). 1992. 373-381. CODEN: GLYCE
Language: ENGLISH
L-selectin is a lectin-like receptor on lymphocytes which mediates their attachment to high endothelial venules (HEV) within lymph nodes. Previous work has identified HEV-associated endothelial ligands for L-selectin as sialylated, fucosylated and sulphated glycoproteins of .apprx.50 kDa and .apprx.90 kDa (Sgp50 and Sgp90). The interaction of L-selectin with these ligands is carbohydrate directed, reflecting the involvement of its amino-terminal, calcium-type lectin domain. It has been reported, and we have confirmed, that anti-Ly22 blocks the adhesive function of L-selectin without reducing its binding to a carbohydrate-based ligand PPME (phosphomannan monoester core from Hansenula hostii). The epitope for this monoclonal antibody depends on the epidermal growth factor (EGF) domain of L-selectin. We demonstrate that anti-Ly22 inhibits the interaction of L-selectin with both of the Sgps, thus establishing that the interaction of L-selectin with HEV can be accounted for by the Sgps. Furthermore, the interaction of trypsin fragments of Sgp50 with L-selectin is inhibitable

both by an antibody that maps to the lectin domain and by anti-Ly22. These findings raise the possibility that anti-Ly22 is affecting the function of the lectin domain of L-selectin rather than directly antagonizing the EGF domain. Toward a further characterization of L-selectin's carbohydrate specificity, we show that Sgp50 is partially inactivated by the linkage specific Newcastle Disease virus sialidase (.alpha.2,3 linkage). We additionally demonstrate that a sialyl Lewis x-related tetrasaccharide can interact with L-selectin, as has also been demonstrated for E-selectin and P-selectin.

2/7/7 (Item 7 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)


9082149 BIOSIS Number: 93067149
TUMOR-ANTIGEN-SPECIFIC HUMORAL IMMUNE RESPONSE OF ANIMALS TO ANTI-IDIOTYPIC ANTIBODIES AND COMPARATIVE SEROLOGICAL ANALYSIS OF PATIENTS WITH SMALL-CELL LUNG CARCINOMA
LEHMANN H-P; ZWICKY C; WAIBEL R; STAHEL R A
DIV. ONCOL., DEP. MED., UNIV. HOSP., CH-8044 ZURICH, SWITZ.
INT J CANCER 50 (1). 1992. 86-92. CODEN: IJCNA
Full Journal Title: International Journal of Cancer
Language: ENGLISH
We have previously developed 3 monoclonal anti-idiotypic antibodies (Ab2) of LOU rat origin directed against the binding site of the murine monoclonal IgM LAM8, which recognizes the small-cell lung carcinoma (SCLC)-associated sialoglycoprotein antigen sGP90-135. The aim of this study was to compare the efficiencies of these 3 Ab2, designated LY8-229, LX8-531 and LX8-632, to induce antigen-specific immunity in different animal species without prior exposure of the recipients to the nominal antigen, and thereby possibly select an Ab2 candidate for active immunotherapy against SCLC in patients. The feasibility of this approach was further evaluated by a serological analysis of patients with SCLC compared with healthy individuals, of patients with SCLC compared with healthy individuals, in whom the spontaneous antibody reactivities against SCLC cell lines and Ab2 were tested. LY8-229 was shown to be the most effective AB2 in inducing antigen-specific antibodies in BALB/c mice CBA/J/Zur mice and one NZW rabbit. Furthermore, LY8-229 was the only Ab2 against which significantly elevated idiotype-specific antibody reactivities existed in sera of patients with SCLC. These reactivities correlated positively with binding to antigen-positive tumor cells. Our findings suggest that LY8-229 represents in its reactivity pattern the nominal SCLC antigen in humans also, and therefore may be of diagnostic and possibly therapeutic relevance for patients with SCLC.

2/7/8 (Item 8 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)


8561339 BIOSIS Number: 92026339
IDENTIFICATION OF A CARBOHYDRATE-BASED ENDOTHELIAL LIGAND FOR A LYMPHOCYTE HOMING RECEPTOR
IMAI Y; SINGER M S; FENNIE C; LASKY L A; ROSEN S D
DEP. ANATOMY, PROGRAM IMMUNOL., UNIVERSITY CALIF., SAN FRANCISCO, CALIF. 94143-0452.
J CELL BIOL 113 (5). 1991. 1213-1222. CODEN: JCLBA

Full Journal Title: Journal of Cell Biology
Language: ENGLISH

Lymphocyte attachment to high endothelial venules within lymph nodes is mediated by the peripheral lymph node homing receptor (pnHR), originally defined on mouse lymphocytes by the MEL-14 mAb. The pnHR is a calcium-dependent lectin-like receptor, a member of the LEC-CAM family of adhesion proteins. Here, using a soluble recombinant form of the homing receptor, we have identified an endothelial ligand for the pnHR as an .apprx. 50-kD sulfated, fucosylated, and sialylated glycoprotein, which we designate Sgp50 (sulfated glycoprotein of 50 kD). Recombinant receptor binding to this lymph node-specific glycoprotein requires calcium and is inhibitable by specific carbohydrates and by MEL-14 mAb. Sialylation of the component is required for binding. Additionally, the glycoprotein is precipitated by MECA-79, an adhesion-blocking mAb reaction with lymph node HEV. A related glycoprotein of .apprx. 90 kD (designated as Sgp90) is also identified.

2/7/9 (Item 9 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)


7106093 BIOSIS Number: 88028838

MONOCLONAL ANTI-IDIOTYPIC ANTIBODY MIMICKING A TUMOR-ASSOCIATED SIALOGLYCOPROTEIN ANTIGEN HUMORAL IMMUNE RESPONSE AGAINST HUMAN SMALL-CELL LUNG CARCINOMA

BARTH A; WAIBEL R; STAHEL R A
DIV. ONCOL., UNIV. HOSP., CH-8091 ZURICH, SWITZ.

INT J CANCER 43 (5). 1989. 896-900. CODEN: IJCNA
Full Journal Title: International Journal of Cancer
Language: ENGLISH

We have previously described the tumor-associated sialglycoprotein antigen sGP90-135 defined by the murine LAM8 MAb. The antigen is characterized by strong membrane expression in a proportion of small-cell carcinomas of the lung, but little or no expression on normal tissues of epithelial or neural origin or on blood cells. With the aim of obtaining anti-idiotypic antibodies which might be useful as surrogates for sgP90-135 in vaccination studies, LOU rats were immunized with LAM8 MAb and their spleen cells fused with Y3 rat myeloma cells. The LY8-229 hybrid was selected by an anti-idiotype competition radioimmunoassay on antigen-positive target cells. LY8-229 was shown to be a rat IgG1 with high specificity for LAM8 combining site. Solubilized small-cell carcinoma extract, as well as antibody SEN I6, which recognizes the same tumor-associated antigen sGP90-135, selectively inhibited 125I-LY8-229 binding to LAM8. Serum from BALB/c mice and DA rats immunized with anti-idiotypic antibody LY8-229 showed reactivity with antigen-positive target cell lines, but not with antigen-negative control cell lines. The induction of a specific immune response in 2 different species by the anti-idiotypic antibody LY8-229 suggests that LY8-229 bears the internal image of the antigen sGP90-135 and that it might be a candidate for immunotherapy trials in cancer patients.

2/7/10 (Item 10 from file: 55)
DIALOG(R)File 55:BIOSIS PREVIEWS(R)


6605103 BIOSIS Number: 86071654

TUMOR-ASSOCIATED MEMBRANE SIALOGLYCOPROTEIN ON HUMAN SMALL CELL LUNG CARCINOMA IDENTIFIED BY THE IGG2A MONOCLONAL ANTIBODY SWA20

WAIBEL R; O'HARA C J; SMITH A; STAHEL R A
DIV. ONCOL., UNIV. HOSP., CH-8091 ZURICH, SWITZ.

CANCER RES 48 (15). 1988. 4318-4323. CODEN: CNREA
Full Journal Title: Cancer Research
Language: ENGLISH

A mouse IgG2a monoclonal antibody, SWA20, defining a tumor-associated cell surface antigen on small cell carcinoma of the lung (SCC) was generated. The reactivity of the antibody with cell lines was examined by indirect immunofluorescence staining and solid phase radioimmunoassay and the reactivity with tissues by immunoperoxidase staining. The antibody reacts with a proportion of small cell carcinoma cell lines (4 of 8) and tissues (7 of 12), but not with other pulmonary or extrapulmonary cell lines (0 of 30) or tumor tissues (0 of 78). The antibody was unreactive with primary cultures of normal bronchial epithelial cells, RBC, and WBC. Immunoperoxidase staining of normal tissues showed rare antigen-positive cells in suprabasal layers of bronchial epithelium and less than 10% of positive cells in colon epithelium. Immunoblots of SCC extracts demonstrated antibody reactivity with a doublet band at Mr 40,000, a broader band at Mr 100,000, and a band at Mr 180,000. The antigen was not present in crude lipid extracts of SCC cells. Solid phase radioimmunoassays and immunoblots showed binding competition with the lectin Triticum vulgaris, sensitivity of the antigen to neuraminidase, and a partial sensitivity to treatment with periodate. The antigen was coexpressed on SCC cell lines with the antigen sGP90-135 defined first by antibody LAM8 (R. Waibel, C. J. O'Hara, and R. A. Stahel. Cancer Res., 47: 3766-3770, 1987) but differed from it by lack of reactivity with Lea-positive saliva and partial resistance to periodate treatment. There was no binding competition between radiolabeled antibodies SWA20 and LAM8 to SCC target cells. The IgG2a antibody SWA20 identifies a previously undescribed tumor-associated surface membrane antigen, sGP100, expressed selectively on a proportion of SCC.

2/7/11 (Item 1 from file: 72)
DIALOG(R)File 72:EMBASE


9406303 EMBASE No: 94357259

Sulfation-dependent recognition of high endothelial venules (HEV)-ligands by L-selectin and MECA 79, an adhesion-blocking monoclonal antibody

Hemmerich S.; Butcher E.C.; Rosen S.D.
Department of Anatomy, University of California, San Francisco, CA 94143-0452 USA

J. EXP. MED. (USA) , 1994, 180/6 (2219-2226) CODEN: JEMEA ISSN: 0022-1007
LANGUAGES: English SUMMARY LANGUAGES: English

L-selectin is a lectin-like receptor that mediates the attachment of lymphocytes to high endothelial venules (HEV) of lymph nodes during the process of lymphocyte recirculation. Two sulfated, mucin-like glycoproteins known as Sgp50/GlyCAM-1 and Sgp90/CD34 have previously been identified as HEV-associated ligands for L-selectin. These proteins were originally detected with an L-selectin/Ig chimera called LEC-IgG. GlyCAM-1 and CD34 are also recognized by an anti-peripheral node addressin (PNAd) mAb called MECA 79, which blocks L-selectin-dependent adhesion and selectively stains lymph node HEV. The present study compares the requirements for the binding of MECA 79 and LEC-IgG to HEV-ligands. Whereas desialylation of GlyCAM-1

and CD34 drastically reduced binding to LEC-IgG, this treatment enhanced the binding of GlyCAM-1 to MECA 79. In contrast, the binding of both MECA 79 and LEC-IgG to GlyCAM-1 and CD34 was greatly decreased when the sulfation of these ligands was reduced with chlorate, a metabolic inhibitor of sulfation. Because MECA 79 stains HEV-like vessels at various sites of inflammation, recognition by L-selectin of ligands outside of secondary lymphoid organs may depend on sulfation. In addition to their reactivity with GlyCAM-1 and CD34, both MECA 79 and LEC-IgG recognize an independent molecule of similar200 kD in a sulfate-dependent manner. Thus, this molecule, which we designate Sgp200, is an additional ligand for L-selectin.

2/7/12 (Item 2 from file: 72)
DIALOG(R)File 72:EMBASE


8864828 EMBASE No: 93168582
Direct demonstration of heterogeneous, sulfated O-linked carbohydrate chains on an endothelial ligand for L-selectin
Imai Y.; Rosen S.D.
Department of Chemical Toxicology, University of Tokyo, Tokyo 113 Japan
GLYCOCONJUGATE J. (United Kingdom) , 1993, 10/1 (34-39) CODEN: GLJOE ISSN: 0282-0080 ADONIS ORDER NUMBER: 028200809300014Q
LANGUAGES: English SUMMARY LANGUAGES: English
We have previously identified endothelial ligands for L-selectin as sialylated, fucosylated and sulfated glycoproteins of approximately 50 kDa and 90 kDa (Sgp50 and Sgp90). In this report, we use the beta elimination reaction to demonstrate directly the presence of sulfated O-linked sugar chains on one of these ligands, after metabolic labeling with radiolabeled sulfate or fucose. All of the sulfated and the majority of the fucosylated O-linked sugar chains were shown to be sialylated by affinity chromatography on a Limax agglutinin column. Analyses by anion exchange and gel permeation chromatography revealed a complexity of sugar chains, which were heterogeneous both in charge and size. Charged groups other than sialic acid appeared to exert a predominant influence on the total charge of the sugar chains. The probable existence of a varying number of sulfate modifications per sugar chain is discussed.

2/7/13 (Item 3 from file: 72)
DIALOG(R)File 72:EMBASE


7415800 EMBASE No: 89138243
Monoclonal anti-idiotypic antibody mimicking a tumor-associated sialoglycoprotein antigen induces humoral immune response against human small-cell lung carcinoma
Barth A.; Waibel R.; Stahel R.A.
Division of Oncology, Department of Medicine, University Hospital of Zurich, CH-8091 Zurich Switzerland
INT. J. CANCER (USA) , 1989, 43/5 (896-900) CODEN: IJCNA ISSN: 0020-7136
LANGUAGES: English
We have previously described the tumor-associated sialoglycoprotein antigen sGP90-135 defined by the murine LAM8 MAb. The antigen is characterized by strong membrane expression in a proportion of small-cell carcinomas of the lung, but little or no expression on normal tissues of

epithelial or neural origin or on blood cells. With the aim of obtaining anti-idiotypic antibodies which might be useful as surrogates for sGP90-135 in vaccination studies, LOU rats were immunized with LAM8 MAb and their spleen cells fused with Y3 rat myeloma cells. The LY8-229 hybrid was selected by an anti-idiotype competition radioimmunoassay on antigen-positive target cells. LY8-229 was shown to be a rat IgG1 with high specificity for LAM8 combining site. Solubilized small-cell carcinoma extract, as well as antibody SEN16, which recognizes the same tumor-associated antigen sGP90-135, selectively inhibited 125I-LY8-229 binding to LAM8. Serum from BALB/c mice and DA rats immunized with anti-idiotypic antibody LY8-229 showed reactivity with antigen-positive target cell lines, but not with antigen-negative control cell lines. The induction of a specific immune response in 2 different species by the anti-idiotypic antibody LY8-229 suggests that LY8-229 bears the internal image of the antigen sGP90-135 and that it might be a candidate for immunotherapy trials in cancer patients.

2/7/14 (Item 1 from file: 154)
DIALOG(R)File 154:MEDLINE(R)


09506704 96028304

Selective modulation of the expression of L-selectin ligands by an immune response.

Hoke D; Mebius RE; Dybdal N; Dowbenko D; Gribling P; Kyle C; Baumhueter S ; Watson SR

Department of Immunology, Genentech, South San Francisco, California 94080, USA.

Curr Biol (ENGLAND) Jun 1 1995, 5 (6) p670-8, ISSN 0960-9822
Journal Code: B44

Languages: ENGLISH

Document type: JOURNAL ARTICLE

BACKGROUND: The adhesion molecule L-selectin is expressed on the cell surface of lymphocytes and mediates their migration from the bloodstream into lymph nodes. L-selectin is able to recognize four glycoprotein ligands, three of which--Sgp50, Sgp90, and Sgp200--are sulphated, bind specifically to L-selectin and are synthesized by the high endothelial venules of the peripheral and mesenteric lymph nodes. One of these three sulphated L-selectin ligands, Sgp90, has been shown to be identical to the known surface marker CD34 and is expressed on the cell surface of endothelial cells. The cDNA encoding Sgp50 has been cloned, and its product, which has been designated GlyCAM-1, is secreted. The third ligand, Sgp200, is both secreted and cell-associated. We have investigated how the expression of these sulphated glycoproteins is regulated during an immune response. RESULTS: Here we demonstrated that, during a primary immune response, the expression and secretion of both GlyCAM-1 and Sgp200 are reduced, recovering to normal levels 7-10 days after antigen stimulation. In contrast, the expression of cell-associated CD34 and Sgp200 is relatively unaffected. These results may account for the modest decreases in the binding of an L-selectin-IgG fusion protein to high endothelial venules of inflamed peripheral lymph nodes that have been observed after antigen exposure. In vivo experiments show that, following the decrease in the levels of secreted GlyCAM-1 and Sgp200, migration of lymphocytes from the blood stream into lymph nodes remains L-selectin-dependent, but more lymphocytes home to antigen-primed than unprimed peripheral lymph nodes. CONCLUSIONS: We suggest that the secreted forms of the L-selectin ligands GlyCAM-1 and Sgp200 act as modulators of cell adhesion, and that

cell-associated CD34 and Sgp200 are the ligands that mediate the initial loose binding of lymphocytes to high endothelial venules.

2/7/15 (Item 2 from file: 154)
DIALOG(R)File 154:MEDLINE(R)


08749378 94064378
Robert Feulgen Lecture 1993. L-selectin and its biological ligands.
Rosen SD
Department of Anatomy, University of California, San Francisco 94143-0452.
Histochemistry (GERMANY) Sep 1993, 100 (3) p185-91, ISSN 0301-5564 Journal Code: G9K
Contract/Grant No.: GM23547, GM, NIGMS
Languages: ENGLISH
Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL
This review considers the leukocyte adhesive receptor known as L-selectin. This protein, belonging to the selectin family of cell-cell adhesion receptors, mediates adhesion by virtue of a C-type lectin domain at its amino terminus. The protein was discovered as a lymphocyte homing receptor involved in the attachment of lymphocytes to high endothelial venules (HEV) of lymph nodes. Its widespread distribution on all leukocyte populations underlies a more general role in a variety of leukocyte-endothelial interactions. In the HEV interaction, cognate HEV ligands for L-selectin have been identified as two sulfated, sialylated, and fucosylated glycoproteins, known as GlyCAM-1 and Sgp90. These ligands have mucin-like domains which confer important properties for their proposed adhesive function. The carbohydrate features of these ligands, essential for their interaction with L-selectin, are reviewed. The existence of extralymphoid ligands for L-selectin is also discussed. (75 Refs.)

2/7/16 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)


118076591 CA: 118(9)76591u PATENT
Assays for inhibitors of leukocyte adhesion
INVENTOR(AUTHOR): Rosen, Steven; Singer, Mark; Imai, Yasuyuki; Yednock, Ted
LOCATION: USA
ASSIGNEE: University of California
PATENT: PCT International ; WO 9219761 A1 DATE: 921112
APPLICATION: WO 92US3606 (920501) *US 695805 (910506)
PAGES: 32 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: C12Q-001/00A; G01N-033/53B DESIGNATED COUNTRIES: CA; JP DESIGNATED REGIONAL: AT; BE; CH ; DE; DK; ES; FR; GB; GR; IT; LU; MC; NL; SE
SECTION:
CA209002 Biochemical Methods
IDENTIFIERS: leukocyte adhesion inhibitor identification, selectin receptor cell adhesion inhibitor, lymphocyte homing receptor adhesion inhibitor
DESCRIPTORS:
Immunoglobulins...
chimeric mol. of lymphocyte homing receptor component and component of,

intercellular adhesion mediated by, inhibitors of, identification of
Glycoproteins,biological studies...
extracellular region of, of endothelial cell, in selectin receptor-mediated intercellular adhesion inhibitor identification
Blood vessel,endothelium,composition...
extracellular region of surface glycoprotein of cells of, in selectin receptor-mediated intercellular adhesion inhibitor identification
Lymphocyte...
fluoresceinated receptor-binding agent and, in lymphocyte homing receptor-mediated intercellular adhesion inhibitor identification
Egg,jelly coat...
fucan of, lymphocyte homing receptor competitive binding of
Cytometry,flow... Glycolipids,sulfo-... Polysaccharides,phosphates,esters ... Polysaccharides,sulfates,esters... Sulfatides... Sulfolipids,glyco-...
in selectin receptor-mediated intercellular adhesion inhibitor identification
Glycoproteins,specific or class, selectins...
intercellular adhesion mediated by, inhibitors of, identification of
Receptors...
lymphocyte homing, intercellular adhesion mediated by, inhibitors of, identification of
Adhesion,bio-...
selectin receptor-mediated, inhibitors of, identification of
Sialoglycoproteins...
Sgp50, extracellular region of, of endothelial cell, in selectin receptor-mediated intercellular adhesion inhibitors identification
Sialoglycoproteins...
Sgp90, extracellular region of, of endothelial cell, in selectin receptor-mediated intercellular adhesion inhibitors identification
Antibodies...
to receptor-binding agents, in lymphocyte homing receptor-mediated intercellular adhesion inhibitor identification

CAS REGISTRY NUMBERS:

9005-49-6 biological studies, lymphocyte homing receptor competitive binding of
9044-08-0 core, of Hansenula hostii, in selectin receptor-mediated intercellular adhesion inhibitor identification
9072-19-9D fluoresceinated, ELISA with, lymphocyte homing receptor-mediated intercellular adhesion inhibitor identification in relation to
9042-14-2 9072-19-9 in selectin receptor-mediated intercellular adhesion inhibitor identification
1256-86-6 12707-58-3 19553-76-5 19600-01-2 37758-47-7 54827-14-4 59247-13-1 62010-37-1 68652-37-9 85305-88-0 103370-52-1 lymphocyte homing receptor competitive binding of
64612-25-5 lymphocyte homing receptor competitive binding of, of egg jelly
2321-07-5D receptor binding agent conjugates, in selectin receptor-mediated intercellular adhesion inhibitor identification

2/7/17 (Item 1 from file: 351)
DIALOG(R)File 351:DERWENT WPI


009351757 WPI Acc No: 93-045231/05
XRAM Acc No: C93-020417
XRPX Acc No: N93-034678
Use of a blocking agent which inhibits leukocyte homing receptor

mediated binding - for treating, diagnosing and monitoring e.g. multiple sclerosis
Patent Assignee: (REGC ) UNIV CALIFORNIA
Author (Inventor): GEOFFROY J; HUANG K; ROSEN S; SINGER M; GEOFFREY J
Number of Patents: 004
Number of Countries: 017
Patent Family:

| CC | Number | Kind | Date | Week | |
|---|---|---|---|---|---|
| WO | 9300919 | A1 | 930121 | 9305 | (Basic) |
| US | 5227369 | A | 930713 | 9329 | |
| EP | 593658 | A1 | 940427 | 9417 | |
| JP | 7505859 | W | 950629 | 9534 | |

Priority Data (CC No Date): US 727280 (910711)
Applications (CC,No,Date): WO 92US5836 (920713); JP 93501815 (920713); WO 92US5836 (920713); EP 92915758 (920713); WO 92US5836 (920713)
Language: English
EP and/or WO Cited Patents: 21Jnl.Ref; EP 153875; EP 184040; US 4294818; US 4618601; US 4752563; US 4818686; US 4839276; US 4935343; US 4948726; US 4994466; US 5036102; US 5089479
Designated States
(National): JP
(Regional): AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LU; MC; NL; SE; LI
Filing Details: JP07505859 Based on WO 9300919; EP0593658 Based on WO 9300919
Abstract (Basic): WO 9300919 A

Treating a demyelinating disease in a patient is claimed, comprising administering a compsn. comprising a carrier and a blocking agent which inhibits lymphocyte homing receptor (LHR)-mediated binding of leukocytes to myelin, the blocking agent being present in an amt. to inhibit LHR-mediated adhesion. The blocking agent may be e.g. mannose-6-phosphate, fructose-1-phosphate, a fragment of fucoidin or the phosphomannan monoester core from Hansenula hostii (PPME), Sgp50, Sgp90, an immunoglobulin or an isolated LHR.

Also claimed is a method of blocking LHR-mediated adhesion of leukocytes to myelin in a patient, comprising administering a compsn. comprising a carrier and a blocking agent which inhibits LHR-mediated binding.

USE - The blocking agents selectively bind either LHR or the recognition determinant on myelin. They can be used in the diagnosis and treatment of demyelinating diseases such as multiple sclerosis (MS), acute disseminated encephalomyelitis, acute necrotising haemorrhagic encephalomyelitis and HIV associated myelopathy. Dwg.0/0

Abstract (US): 9329 US 5227369 A

Treating the demyelmating effect comprises admin. of a compsn. comprising a protein blocking agent which inhibits LHR-mediated binding of leukocytes to myelin and inhibits adhesion. Blocking agent comprises an extracellullar region of an endothelial cell surface glycoprotein or an immunoglobulin.

USE/ADVANTAGE - Used for treating and diagnosing demyelimating disease e.g. multiple sclerosis. Dwg.0/0

Derwent Class: B05; S03;
Int Pat Class: A61K-031/70; A61K-031/715; A61K-037/02; A61K-038/00; A61K-039/395; A61K-045/00; G01N-033/53

2/7/18 (Item 2 from file: 351)
DIALOG(R)File 351:DERWENT WPI

009271472 WPI Acc No: 92-398884/48
Related WPI Accession(s): 92-398862
XRAM Acc No: C92-177007

Inhibitors of inter-cellular adhesion mediated by selectin receptor - are isolated by using assays with the receptor and receptor-binding agent

Patent Assignee: (GETH ) GENENTECH INC; (REGC ) UNIV CALIFORNIA
Author (Inventor): IMAI Y; LASKY L A; ROSEN S D; SINGER M S; ROSEN S; SINGER M; YEDNOCK T
Number of Patents: 003
Number of Countries: 017
Patent Family:

| CC | Number | Kind | Date | Week | |
|---|---|---|---|---|---|
| WO | 9219761 | A1 | 921112 | 9248 | (Basic) |
| EP | 584194 | A1 | 940302 | 9409 | |
| EP | 584194 | A4 | 940928 | 9534 | |

Priority Data (CC No Date): US 695805 (910506)
Applications (CC,No,Date): EP 92911137 ( ); WO 92US3606 (920501); EP 92911137 (920501); WO 92US3606 (920501)
Language: English
EP and/or WO Cited Patents: 3.Jnl.Ref; WO 9013300 X
Designated States
(National): CA; JP
(Regional): AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LU; MC; NL; SE; LI
Filing Details: EP0584194 Based on WO 9219761
Abstract (Basic): WO 9219761 A

A method for assaying a test cpd. for the ability to inhibit intercellular adhesion mediated by a selectin receptor, comprising (a) contacting the test cpd. with the receptor and an isolated receptor-binding agent (RBA) selected from a phosphorylated polysaccharide, a sulphated polysaccharide and a cpd. comprising the extracellular region of an endothelial cell surface glycoprotein and (b) detecting the ability of the test cpd. to inhibit binding between the receptor and the agent.

The receptor may be a lymphocyte homing receptor or a chimeric molecule comprising a lymphocyte homing receptor component and an immunoglobulin component. The RBA may be e.g. PPME, fucoidin, dextran sulphate, Sgp50 or Sgp90. The RBA is pref. labelled with fluorescein.

USE/ADVANTAGE - The assays allow large scale in vitro screening of a variety of cpds. The inhibitors obtd. can be used for treating selectin-mediated disease responses, e.g. inflammation, rheumatoid arthritis, post-ischemic leukocyte-mediated tissue damage, frost-bite injury or shock, adult respiratory distress syndrome, asthma, traumatic shock, septic shock, atopic dermatitis, psoriasis, inflammatory bowel disease, atherosclerosis or clotting. They can also be used for inhibiting or preventing tumour metastasis in e.g. colon carcinoma and melanoma. The inhibitors can also be used to target other pharmaceutical cpds. such as anti-inflammatory agents or antioxidants to the sites of injury. Dwg.0/0

Derwent Class: B04; D16;
Int Pat Class: A61K-037/02; C07K-013/00; C12N-005/10; C12N-015/12; C12N-015/13; C12N-015/62; C12P-021/02; C12P-021/08; C12Q-001/00; G01N-033/53

?s sgp90 and cd334

```
              41  SGP90
               0  CD334
      S3       0  SGP90 AND CD334
?s sgp90 and cd34

              41  SGP90
            8094  CD34
      S4       12  SGP90 AND CD34
?rd s4

>>>Duplicate detection is not supported for File 351.

>>>Records from unsupported files will be retained in the RD set.
...completed examining records
      S5        6  RD S4 (unique items)
?t s5/7/all


 5/7/1     (Item 1 from file: 55)
DIALOG(R)File  55:BIOSIS PREVIEWS(R)
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11473588     BIOSIS Number: 98073588
  Localization of ligands for L-selectin in mouse peripheral lymph node
high endothelial cells by colloidal gold conjugates
  Kikuta A; Rosen S D
  Dep. Anatomy, Okayama Univ. Med. Sch., 2-5-1 Shikata-cho, Okayama 700,
Japan
  Blood 84 (11). 1994.  3766-3775.
  Full Journal Title:  Blood
  ISSN: 0006-4971
  Language: ENGLISH
  Print Number: Biological Abstracts Vol. 099 Iss. 004 Ref. 043998
  L-selectin, a Ca-2+-dependent lectin-like receptor, mediates lymphocyte
attachment to high endothelial venules (HEV) of peripheral lymph nodes
(PLN) during the process of lymphocyte homing. Two endothelial-derived
ligands for L-selectin, known as GlyCAM-1 (Sgp50) and CD34 (Sgp90), have
been identified by affinity precipitation of lymph nods extracts with a
chimeric molecule that combines the extracellular domains of L-selectin
with the human IgG1 Fc region (L-selectin-IgG) (J Cell Biol 110:2221,
1990). Here, using a histologic probe based on colloidal gold conjugated to
L-selectin-IgG (LS-1g), we performed morphologic mapping of the HEV ligands
in PLN at both the light and electron microscopic levels. With a
postembedding labeling method, intense LS-Ig-gold staining of PLN HEV was
observed, while the HEV of Peyer's patches (PP) were negative. The
specificity of LS-Ig-gold staining was established by pretreatment of
sections with sialidase and coincubation of sections with EGTA, fucoidin,
or L-selectin-IgG itself. In ultrastructural studies of high endothelial
cells(HEC), gold particles were bound to the trans-Golgi network(TGN) and
to peripheral vesicles in the cytoplasm. Gold labeling was also detected in
a patchy distribution on the entire luminal vascular surface of HEC.
Although the perivascular fibroreticular sheath of HEV was frequently
labeled, limited labeling was observed on the basolateral surfaces of the
HEC. In most cases, the HEC membrane surrounding migrating lymphocytes was
negative. These results show that L-selectin ligands pass through the Golgi
apparatus during their biosynthesis, are stored in secretory granules, and
are expressed on the vascular luminal surface of the HEC. A polyclonal
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endothelium are involved in the migration of lymphocytes through peripheral lymph nodes and of neutrophils to sites of inflammation. A recombinant L-selectin stains high endothelial venules (HEVs) in lymph nodes and recognizes sulfated carbohydrates found on two endothelial glycoproteins, Sgp50 and Sgp90. Amino acid sequencing of purified Sgp90 revealed a protein core identical to that of CD34, a sialomucin expressed on hematopoietic stem cells and endothelium. A polyclonal antiserum to recombinant murine CD34 stains peripheral lymph node endothelium and recognizes Sgp90 that is functionally bound by L-selectin. Thus, an HEV glycoform of CD34 can function as a ligand for L-selectin.

5/7/4 (Item 1 from file: 72)
DIALOG(R)File 72:EMBASE


9406303 EMBASE No: 94357259
Sulfation-dependent recognition of high endothelial venules (HEV)-ligands by L-selectin and MECA 79, an adhesion-blocking monoclonal antibody
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J. EXP. MED. (USA) , 1994, 180/6 (2219-2226) CODEN: JEMEA ISSN: 0022-1007
LANGUAGES: English SUMMARY LANGUAGES: English
L-selectin is a lectin-like receptor that mediates the attachment of lymphocytes to high endothelial venules (HEV) of lymph nodes during the process of lymphocyte recirculation. Two sulfated, mucin-like glycoproteins known as Sgp50/GlyCAM-1 and Sgp90/CD34 have previously been identified as HEV-associated ligands for L-selectin. These proteins were originally detected with an L-selectin/Ig chimera called LEC-IgG. GlyCAM-1 and CD34 are also recognized by an anti-peripheral node addressin (PNAd) mAb called MECA 79, which blocks L-selectin-dependent adhesion and selectively stains lymph node HEV. The present study compares the requirements for the binding of MECA 79 and LEC-IgG to HEV-ligands. Whereas desialylation of GlyCAM-1 and CD34 drastically reduced binding to LEC-IgG, this treatment enhanced the binding of GlyCAM-1 to MECA 79. In contrast, the binding of both MECA 79 and LEC-IgG to GlyCAM-1 and CD34 was greatly decreased when the sulfation of these ligands was reduced with chlorate, a metabolic inhibitor of sulfation. Because MECA 79 stains HEV-like vessels at various sites of inflammation, recognition by L-selectin of ligands outside of secondary lymphoid organs may depend on sulfation. In addition to their reactivity with GlyCAM-1 and CD34, both MECA 79 and LEC-IgG recognize an independent molecule of similar200 kD in a sulfate-dependent manner. Thus, this molecule, which we designate Sgp200, is an additional ligand for L-selectin.

5/7/5 (Item 1 from file: 154)
DIALOG(R)File 154:MEDLINE(R)


09506704 96028304
Selective modulation of the expression of L-selectin ligands by an immune response.
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Curr Biol (ENGLAND) Jun 1 1995, 5 (6) p670-8, ISSN 0960-9822
Journal Code: B44
Languages: ENGLISH
Document type: JOURNAL ARTICLE
BACKGROUND: The adhesion molecule L-selectin is expressed on the cell surface of lymphocytes and mediates their migration from the bloodstream into lymph nodes. L-selectin is able to recognize four glycoprotein ligands, three of which--Sgp50, Sgp90, and Sgp200--are sulphated, bind specifically to L-selectin and are synthesized by the high endothelial venules of the peripheral and mesenteric lymph nodes. One of these three sulphated L-selectin ligands, Sgp90, has been shown to be identical to the known surface marker CD34 and is expressed on the cell surface of endothelial cells. The cDNA encoding Sgp50 has been cloned, and its product, which has been designated GlyCAM-1, is secreted. The third ligand, Sgp200, is both secreted and cell-associated. We have investigated how the expression of these sulphated glycoproteins is regulated during an immune response. RESULTS: Here we demonstrated that, during a primary immune response, the expression and secretion of both GlyCAM-1 and Sgp200 are reduced, recovering to normal levels 7-10 days after antigen stimulation. In contrast, the expression of cell-associated CD34 and Sgp200 is relatively unaffected. These results may account for the modest decreases in the binding of an L-selectin-IgG fusion protein to high endothelial venules of inflamed peripheral lymph nodes that have been observed after antigen exposure. In vivo experiments show that, following the decrease in the levels of secreted GlyCAM-1 and Sgp200, migration of lymphocytes from the blood stream into lymph nodes remains L-selectin-dependent, but more lymphocytes home to antigen-primed than unprimed peripheral lymph nodes. CONCLUSIONS: We suggest that the secreted forms of the L-selectin ligands GlyCAM-1 and Sgp200 act as modulators of cell adhesion, and that cell-associated CD34 and Sgp200 are the ligands that mediate the initial loose binding of lymphocytes to high endothelial venules.

5/7/6 (Item 2 from file: 154)
DIALOG(R)File 154:MEDLINE(R)


08749378 94064378
Robert Feulgen Lecture 1993. L-selectin and its biological ligands.
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Histochemistry (GERMANY) Sep 1993, 100 (3) p185-91, ISSN 0301-5564
Journal Code: G9K
Contract/Grant No.: GM23547, GM, NIGMS
Languages: ENGLISH
Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL
This review considers the leukocyte adhesive receptor known as L-selectin. This protein, belonging to the selectin family of cell-cell adhesion receptors, mediates adhesion by virtue of a C-type lectin domain at its amino terminus. The protein was discovered as a lymphocyte homing receptor involved in the attachment of lymphocytes to high endothelial venules (HEV) of lymph nodes. Its widespread distribution on all leukocyte populations underlies a more general role in a variety of leukocyte-endothelial interactions. In the HEV interaction, cognate HEV ligands for L-selectin have been identified as two sulfated, sialylated, and fucosylated glycoproteins, known as GlyCAM-1 and Sgp90. These ligands

have mucin-like domains which confer important properties for their proposed adhesive function. The carbohydrate features of these ligands, essential for their interaction with L-selectin, are reviewed. The existence of extralymphoid ligands for L-selectin is also discussed. (75 Refs.)